(000000-000000- -0028)

DATE OF ISSUE 4/03/2001 SUPERSEDES 2/18/1999

SECTION I - GENERAL INFORMATION

Chemical Name & Synonyms
N/A

Trade Name & Synonyms
BANISH

Chemical Family:
HYDROCHLORIC ACID SOLUTION

Formula Mixture --> X

Manufacturer's Name:
CHEMSEARCH DIV. OF NCH CORP.

Address:
BOX 152170
IRVING, TX 75015

Prepared By:
L Boynton/Chemist

Product Code Number
0028

Emergency Phone Number
800-424-9300

SECTION II - HAZARDOUS INGREDIENTS
THE HAZARDS PRESENTED BELOW ARE THOSE OF THE INDIVIDUAL COMPONENTS

Chemical Name (Ingredients)	Hazard	TLV		PEL		STEL	CAS #
HYDROCHLORIC ACID	CORROSIVE	5 PPM	1	5 PPM	2	NOT EST.	7647-01-0

SECTION IIa - NON-HAZARDOUS INGREDIENTS
(NON-HAZARDOUS INGREDIENT NAMES AND CAS NUMBERS ARE PROTECTED UNDER NJ TRADE)

Secret Registry #: 409363-5028P

SECTION III - PHYSICAL DATA

Boiling Point (F):	220	Specific Gravity (H20=1):	1.09
Vapor Pressure (MM HG):	20	Color:	LIGHT AMBER
Vapor Density (Air=1):	0.8	Odor:	PUNGENT ACID
[illegible] @ 100% :	[illegible]	Clarity:	TRANSPARENT
% Volatile by Volume:	99.0	Evaporation Rate (BU A/C=1):	0.1
H20 Solubility:	COMPLETE	Viscosity:	NON-VISCOUS

SECTION IV - FIRE AND EXPLOSION HAZARD

Flash Point	Flammable Limits	LEL	UEL
NON-FLAM / N/A	N/A	N/A	N/A

Extinguishing Media
X <--Foam X <--Alcohol Foam X <--CO2 X <--Dry Chemical X <--Water Spray X <--Other

Special Fire Fighting Procedures:
FIREFIGHTERS SHOULD WEAR A SELF-CONTAINED BREATHING APPARATUS AND FULL PROTECTIVE GEAR. EXTINGUISHING MEDIA SHOULD BE CHOSEN BASED ON THE NATURE OF THE SURROUNDING FIRE.

Unusual Fire and Explosion Hazards:
PROLONGED CONTACT WITH REACTIVE METALS, SUCH AS ALUMINUM, ZINC, MAGNESIUM AND COPPER, CAN CAUSE FORMATION OF FLAMMABLE HYDROGEN GAS WHICH CAN FORM AN EXPLOSIVE MIXTURE WITH AIR. MAY RELEASE HYDROGEN CHLORIDE GAS WHEN HEATED.

Aerosol Level (NFPA 30B): N/A

NFPA 704 Hazard Rating (0=Insignificant 1=Slight 2=Moderate 3=High 4=Extreme)
3 <--Health 1 <--Flammability 0 <--Instability <--Special

SECTION V - HEALTH HAZARD DATA

Threshold Limit Value:
5 PPM AS HYDROCHLORIC ACID 1.

Effects of Overexposure:

-Acute (Short Term Exposure)

SKIN: CONTACT WITH THE UNDILUTED MATERIAL WILL CAUSE BURNS UNLESS RINSED IMMEDIATELY. EYES: CONTACT WITH UNDILUTED MATERIAL WILL CASE PAINFUL BURNS AND POSSIBLE PERMANENT INJURY OR BLINDNESS. INHALATION: HIGH LEVEL OF EITHER VAPOR OR MIST WILL CAUSE SEVERE IRRITATION OF THE ENTIRE RESPIRATORY TRACT WITH COUGHING, BURNING SENSATION, AND CHOKING. INHALATION OF A HIGH VAPOR LEVEL CAN BE FATAL. INGESTION: WHILE UNLIKELY, INGESTION OF LARGE AMOUNTS WILL CAUSE BURNS OF THE DIGESTIVE TRACT, PAIN, THIRST, NAUSEA, VOMITING AND/OR DIARRHEA.

-Chronic (Long Term Exposure)

LONG-TERM EXPOSURE TO LOW LEVELS OF VAPORS OR MIST MAY CAUSE EROSION OF TEETH AND/OR EYE INJURY AND POSSIBLE LOSS OF SIGHT. REPEATED SKIN EXPOSURES MAY CAUSE DERMATITIS, ULCERATION AND/OR SCARRING. REPEATED INHALATION OF MIST OR VAPORS MAY CAUSE LARYNGITIS, BRONCHITIS, GLOTTAL EDEMAL, PULMONARY EDEMA AND DEATH. MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE ARE PRE-EXISTING RESPIRATORY AND SKIN CONDITIONS SUCH AS ASTHMA, EMPHYSEMA, AND DERMATITIS. TARGET ORGANS: LUNGS

Primary Routes of Entry: X <--Inhalation X <--Ingestion <--Absorption

SECTION V - HEALTH HAZARD DATA (Continued)

Emergency and First Aid Procedures:

-Inhalation:

REMOVE FROM THE AREA TO FRESH AIR. IF NOT BREATHING, CLEAR THE AIRWAY AND START MOUTH TO MOUTH ARTIFICIAL RESPIRATION. GET IMMEDIATE MEDICAL ATTENTION.

-Eye Contact:

IMMEDIATELY RINSE THE EYES WITH WATER. REMOVE ANY CONTACT LENSES AND CONTINUE FLUSHING FOR AT LEAST 15 MINUTES. HOLD THE EYELIDS APART TO ENSURE RINSING OF THE ENTIRE SURFACE OF THE EYES AND LIDS WITH WATER. GET IMMEDIATE MEDICAL ATTENTION.

-Skin Contact:

WASH AFFECTED AREAS WITH LARGE AMOUNTS OF SOAP AND WATER FOR 15 MINUTES. REMOVE CONTAMINATED CLOTHING AND SHOES. GET IMMEDIATE MEDICAL ATTENTION. WASH CLOTHING AND CLEAN SHOES BEFORE REUSE.

-Ingestion:

GIVE 3-4 GLASSES WATER BUT DO NOT INDUCE VOMITING. IF VOMITING OCCOURS GIVE FLUIDS AGAIN. GET IMMEDIATE MEDICAL ATTENTION. DO NOT GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS OR CONVULSING PERSON.

-Notes to Physician:

THERE IS NO SPECIFIC ANTIDOTE. TREAT THE PATIENT SYMPTOMATICALLY.

SECTION VI - TOXICITY INFORMATION

Product Contains Chemicals Listed as Carcinogen or Potential Carcinogen By:
IARC--> No NTP--> No OSHA--> No ACGIH--> No OTHER--> No

HYDROCHLORIC ACID:
ORL-RAT LD50: 900 MG/KG 3.
IHL-RAT LD50: 3124 PPM/1H 3.
IHL-HMN LCLO: 1300 PPM/30M 3.
EYE-RBT: 5 MG/30S MLD 3.
UNK-MAN LDLO: 81 MG/KG 3.
EXPOSURES OF 100 PPM FOR 6 HRS A DAY FOR 50 DAYS CAUSED ONLY SLIGHT UNREST AND IRRITATION TO THE TYES AND NOSE OF RABBITS, GUINEA PIGS AND PIGEONS. THE HEMOGLOBIN CONTENT OF THE BLOOD WAS ALSO SLIGHTLY DIMINISHED. MONKEYS RECEIVING 20 EXPOSURES OF 33 PPM FOR 6 HRS DID NOT DISPLAY ANY ADVERSE EFFECTS. HIGHER EXPOSURES HAVE CAUSED WEIGHT LOSS WHICH PARALLELED THE SEVERITY OF EXPOSURE. BABOONS EXPOSED TO 500, 5000 OR 10,000 PPM FOR 15 MINUTES DID NOT HAVE SIGNIFICANT ALTERATIONS IN ANY PULMONARY FUNCTION PARAMETERS 3 DAYS OR 3 MONTHS AFTER EXPOSURE. IN HUMANS, LONG TERM OVER-EXPOSURES HAVE BEEN ASSOCIATED WITH EROSION OF TEETH. 4.
NO STANDARD CARCINOGENICITY STUDIES FOR HYDROGEN CHLORIDE WERE IDENTIFIED. TWO STUDIES ON RATS WERE CONDUCTED TO DETERMINE IF HYDROGEN CHLORIDE INCREASED THE FORMATION OF NASAL TUMORS OR INCREASED THE CARCINOGENIC POTENTIAL OF FORMALDEHYDE. IN BOTH STUDIES, THE RATS WERE EXPOSED TO 10 PPM HYDROGEN CHLORIDE, 6 HRS PER DAY, 5 DAYS A WEEK. ONE STUDY LASTED 84 WEEKS WHILE THE OTHER LASTED THE ANIMAL' LIFETIME. HYDROGEN CHLORIDE DID NOT CAUSE AN INCREASE IN NASAL TUMORS AND DID NOT INCREASE THE CARCINOGENICITY OF FORMALDEHYDE. HYDROGEN CHLORIDE IS NOT LISTED ON THE IARC, NTP OR OSHA CARCINOGEN LISTS. 4.

SECTION VII - REACTIVITY DATA

Stability: X <--Stable <--Unstable
Conditions to Avoid:
CONTACT WITH BASES CAN CAUSE VIOLENT REACTION GENERATING LARGE AMOUNTS OF HEAT. REACTIONS WITH METALS CAN RELEASE HYDROGEN GAS.

Incompatibility (Materials to Avoid):
BASES, ALKALI AND ACTIVE METALS, CYANIDES, SULFIDES, AMINES, FORMALDEHYDE, CARBIDES OF CALCIUM, ACETYLIDES OF CESIUM &RUBIDIUM

Hazardous Decomposition Products:
HYDROGEN CHLORIDE, HYDROGEN, AND CHLORINE GASES CAN FORM IF HEATED TO DECOMPOSITION.

Hazardous Polymerization: <--May Occur X <--Will Not Occur
Conditions to Avoid:
N/A

SECTION VIII - SPILL OR LEAK PROCEDURES

Steps to be Taken if Material is Released or Spilled:
DIKE AND CONTAIN SPILL. ABSORB WITH AN INERT MATERIAL AND TRANSFER ALL MATERIAL INTO A PROPERLY LABELED CONTAINER FOR DISPOSAL. WEAR APPROPRIATE PROTECTIVE CLOTHING.

Waste Disposal Method(s):
DISPOSE OF IN ACCORDANCE WITH ALL FEDERAL, STATE AND LOCAL REGULATIONS

Neutralizing Agent:
USE SODIUM BICARBONATE OR SODA ASH. ADD CAUTIOUSLY WHILE MIXING. WEAR APPROPRIATE PROTECTIVE EQUIPMENT.

SECTION IX - SPECIAL PROTECTION INFORMATION

Required Ventilation:
LOCAL VENTILATION IS RECOMMENDED TO CONTROL EXPOSURE FROM OPERATIONS THAT CAN GENERATE MISTS OR VAPORS.

Respiratory Protection:
A NIOSH/MSHA APPROVED RESPIRATOR IN POORLY VENTILATED AREAS AND/OR FOR EXPOSURE ABOVE THE ACGIH TLV OR OSHA PEL OR WHERE MISTING EXISTS.

Glove Protection:
NEOPRENE OR NITRILE RUBBER GLOVES SHOULD BE WORN.

Eye Protection:

SECTION IX - SPECIAL PROTECTION INFORMATION (Continued)

CHEMICAL GOGGLES AND A FACE SHIELD SHOULD BE WORN.

Other Protection:
WEAR PROTECTIVE CLOTHING WHEN HANDLING.

SECTION X - STORAGE AND HANDLING INFORMATION

Storage Temperature: Indoors--> X Outdoors--> Heated--> Refrigerated-->
Minimum Temperature: 32 F Maximum Temperature: 100 F

Precautions to be Taken in Handling and Storing:
ALWAYS STORE MATERIAL IN ITS ORIGINAL CONTAINER. KEEP CONTAINER TIGHTLY CLOSED WHEN NOT IN USE. DO NOT STORE NEAR ALKALI MATERIALS OR CHLORINE COMPOUNDS.

Other Precautions:
KEEP OUT OF REACH OF CHILDREN. READ THE ENTIRE LABEL BEFORE USING THE PRODUCT. FOLLOW THE LABEL DIRECTIONS.

SECTION XI - REGULATORY INFORMATION

Chemical Name	CAS Number	Upper % Limit
HYDROCHLORIC ACID	7647-01-0	20
HYDROCHLORIC ACID	7647-01-0	20

Those ingredients listed above are subject to the reporting requirements of 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR part 372.

Please call 1-800-527-9919 for additional information if you are a California customer.
This MSDS is not intended for users in the state of California.

SECTION XII - REFERENCES

1. THRESHOLD LIMIT VALUES FOR CHEMICAL SUBSTANCES AND PHYSICAL AGENTS AND BIOLOGICAL EXPOSURE INDICES, ACGIH, 1999.
2. OSHA PEL.
3. REGISTRY OF TOXIC EFFECTS OF CHEMICAL SUBSTANCES, CCINFODisc, 1999.
4. VENDOR'S MSDS.
ALL COMPONENTS IN THIS PRODUCT CAN BE FOUND IN THE CURRENT TSCA INVENTORY.

IRR:IRRITANT, FLAM/FLAMM:FLAMMABLE, COMB:COMBUSTIBLE, CORR:CORROSIVE CARC:CARCINOGENIC, TOX:TOXIC, N/A:NOT APPLICABLE, N/E:NOT ESTABLISHED, COC:CLEVELAND OPEN CUP, PMCC:PENSKY-MARTIN CLOSED CUP, TCC:TAGLIABUE CLOSEDCUP, LEL:LOWER EXPLOSION LIMIT, UEL:UPPER EXPLOSION LIMIT, NFPA:NATIONAL FIRE PROTECTION ASSOCIATION, IARC:INTERNATIONAL AGENCY FOR [illegible] RESEARCH ON CANCER, NTP:NATIONAL TOXICOLOGY PROGRAM, OSHA:OCCUPATIONAL [illegible]FETY & HEALTH ADMINISTRATION, ACGIH:AMERICAN CONFERENCE OF GOVERNMENTAL INDUSTRIAL HYGIENISTS, TLV:THRESHOLD LIMIT VALUE, PEL:PERMISSIBLE EXPOSURE LEVEL, STEL:SHORT-TERM EXPOSURE LIMIT, MLD:MILD, MOD:MODERATE, SEV:SEVERE, MUT:MUTAGENIC, ASPHYX:ASPHYXIANT, PNOC: PARTICULATES NOT OTHERWISE CLASSIFIED